1. 35 U.S.C. 101 reads as follows:

Whoever invents or discovers any new and useful process, machine, manufacture, or composition of matter, or any new and useful improvement thereof, may obtain a patent therefor, subject to the conditions and requirements of this title.

2. **Claim 7-9 are rejected under 35 U.S.C. 101 because the claimed invention is directed to non-statutory subject matter**.

Claims 7-9 are directed to a "medium" that contains signal data. Such a medium recitation is clearly inclusive of a carrier wave (and/or the space/medium via which it travels). Such a medium is not a process, machine, manufacture, or composition of matter and thus does not fall within the scope of section 101; e.g., signals per se are formed of energy and therefor do not comprise statutory subject matter.

3. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

4. Claims 6-9 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

1) Claim 6 is confusing and indefinite because line 1 of the claim suggests that the claim is directed to an "apparatus" while lines 1-7 of the claim do not appears to positively set forth the structure that comprises such an apparatus. Clarification is required.

2) Claim 7 is confusing and indefinite because line 1 of the claim suggests that the claim is directed to a "medium" while lines 1-7 of the claim do not appears to positively set forth the structure that comprises such a "medium"; e.g., rather lines 1-7 appear to describe "stream data" carries thereby and/or what the stream data represents (e.g., non-functional descriptive material). Clarification is needed. Similar clarification is needed for claims 8 and 9.

5. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

> **A person shall be entitled to a patent unless –**
>
> (b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

6. Claims 7-9 are rejected under 35 U.S.C. 102(b) as being clearly anticipated by notoriously well known storage mediums. The following is noted:

A) Each of claims 7-9 is directed to a "medium" having a data stream/signal recorded thereon. The examiner contends that, as currently drafted, the "body" of each of these claims merely describes what the data stream/signal represents and, as such, constitutes "non-functional descriptive material".

B) The examiner takes Official Notice that video/audio storage mediums for storing data streams/signals were notoriously well known in the art at the time of the alleged invention. The examiner maintains that such known "mediums" anticipate claims 7-9 in view that applicant cannot rely on non-functional descriptive material for patentability.

7. **Claim 7 is rejected under 35 U.S.C. 102(b) as being anticipated by US Patent #5,267,332 to Normille et al.**

As is illustrated in Figure 7(a), Normille et al describes a data stream comprised of a sequence of segments (e.g., each of 701-703, 710-713, 720, and 721) which, as shown in Figure 7b, are of a variable length due to a data portion (i.e., @ 754) that was encoded using a variable length encoding scheme. As also shown in Figure 7b, each of the segments includes first information (e.g., @ 752) and second information (e.g., @ 753) pointing to the next segment of the stream to be accessed, decoded, and displayed in a forward and backward play direction **[e.g. SEE: lines 27-33 of column 14; and lines 1-22 of column 15].** As described, a purpose of the data stream was to provide a "stable"/"mature" full features compression scheme for compressing moving pictures for storage on a recording medium, such a CD-ROM **[e.g. SEE: lines 47-52 of column 1; lines 11-14 of column 2; lines 59-68 of column 6; and lines 1-5 and 51-55 of column 7].**
The examiner maintains that, in such a recording environment, the first and second information implicitly point to storage locations at which the next segments which are implicitly defined by the pointers relative to the start and ends of the given segment (i.e., given the variable length of the segments and thus the "purpose" of the pointers).

8. **Claims 8 and 9 are rejected under 35 U.S.C. 102(b) as being anticipated by US Patent #5,267,332 to Normille et al. for the reasons set forth above for claim 7.**

9. **Claim 6 is rejected under 35 U.S.C. 102(b) as being anticipated by US Patent #5,267,332 to Normille et al. for the reasons set forth above for claim 7. Additionally:**

To have recorded the stream on the recording medium as described, Normille et al would have required a recording apparatus (note Figure 8a).

10. **Claim 1 is rejected under 35 U.S.C. 102(b) as being anticipated by US Patent #5,267,332 to Normille et al. for the reasons set forth above for claim 7. Additionally:**

To have recorded the stream on the recording medium as described, Normille et al would have required a recording apparatus (note Figure 9). As illustrated such a recording apparatus necessarily included:

1) Reading interface circuitry (not shown in the figure) for providing the segments to be decoded from the recording medium to the inputs (@ 910) by selectively reading the segment from the medium in the order/sequence shown in Figure 7a;

2) A control input for receiving a selection of a display directions (i.e., as evidenced by the input @ 911 which is indicative of such a selection having been made) [note lines 33-36 of column 16]; and

3) An access "location" computing unit not shown in the Figure which necessary controls the reading circuitry to read the segments from the recording means in the order/sequence shown in Figure 7a, as computed by first or second information (i.e., @ 752 & 753 of Figure 7b), as determined by the selected playback direction.

11. **Claim 2 is rejected under 35 U.S.C. 102(b) as being anticipated by US Patent #5,267,332 to Normille et al. for the reasons set forth above for claim 1.**

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12. **Claims 3 is rejected under 35 U.S.C. 102(b) as being anticipated by US Patent #5,267,332 to Normille et al. for the reasons set forth above for claim 6.**

13. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> **(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.**

This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of the various claims was commonly owned at the time any inventions covered therein were made absent any evidence to the contrary. Applicant is advised of the obligation under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was not commonly owned at the time a later invention was made in order for the examiner to consider the applicability of 35 U.S.C. 103(c) and potential 35 U.S.C. 102(e), (f) or (g) prior art under 35 U.S.C. 103(a).

14. Claim 5 is rejected under 35 U.S.C. 103(a) as being unpatentable over US Patent #5,267,332 to Normille et al.

Normille et al discloses a system/method as was set forth above with respect to claim 3.

Claim 5 differs from the showing of Normille et al only in that claim 5 recites that the segments comprise more that one frame.

The examiner takes Official notice that it was known in the special video replay art to have only used I-frames during special mode reproduction to limit the load (i.e., processing power) of the decoder. The examiner maintains that it would have been obvious to have modified the system/method disclosed by Normille et al to have only processed I-frame during special mode reproduction to obtain the well known benefits thereof. To implement this modification it would have been obvious to have associated the pointer information with the I-frames thereby requiring the segments to comprise a plurality of frames.

15. Claim 4 is rejected under 35 U.S.C. 103(a) as being unpatentable over US Patent #5,267,332 to Normille et al.

Normille et al discloses a system/method as was set forth above with respect to claim 3.

Claim 4 differs from the showing of Normille et al only in that claim 5 recites that the segment comprise a plurality of encrypted blocks.

As noted above with respect to claim 5, the examiner takes Official notice that it was known in the special video replay art to have only used I-frames during special mode reproduction to limit the load (i.e., processing power) of the decoder. The examiner maintains that it would have been obvious to have modified the system/method disclosed by Normille et al to have only processed I-frame during special mode reproduction to obtain the well known benefits thereof. To implement this modification it would have been obvious to have associated the pointer information with the I-frames thereby requiring the segments to comprise a plurality of frames.

The examiner also takes Official Notice that it was notoriously known in the video transmission art to have encrypted the frame (i.e., "blocks") of a video broadcast to prevent unauthorized use thereof. The examiner maintains that it would have been obvious to one of ordinary skill in the art to have encrypted the frames/blocks in the modified system of Normille et al utilizing such conventional encryption techniques to prevent unauthorized use of the recorded signal (as desired/needed).

16. The drawings are objected to because the block shown in Figures 1, 3, and 4 are not functionally labeled. Corrected drawing sheets in compliance with 37 CFR 1.121(d) are required in reply to the Office action to avoid abandonment of the application. Any amended replacement drawing sheet should include all of the figures appearing on the immediate prior version of the sheet, even if only one figure is being amended. The figure or figure number of an amended drawing should not be labeled as "amended." If a drawing figure is to be canceled, the appropriate figure must be removed from the replacement sheet, and where necessary, the remaining figures must be renumbered and appropriate changes made to the brief description of the several views of the drawings for consistency. Additional replacement sheets may be necessary to show the renumbering of the remaining figures. Each drawing sheet submitted after the filing date of an application must be labeled in the top margin as either "Replacement Sheet" or "New Sheet" pursuant to 37 CFR 1.121(d). If the changes are not accepted by the examiner, the applicant will be notified and informed of any required corrective action in the next Office action. The objection to the drawings will not be held in abeyance.

17. The cited references were cited for their showing of systems which accessed segments of data based on pointers contained therein (or associated therewith).

18. Any inquiry concerning this communication or earlier communications from the examiner should be directed to DAVID E. HARVEY whose telephone number is (571) 272-7345. The examiner can normally be reached on M-F from 6:00AM to 3PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Ms. Marsh D. Banks-Harold, can be reached on (571) 272-7905. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

/DAVID E HARVEY/

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